for each such month; conversely, if in a single month, the performance provided to the CLEC exceeds that provided to SWBT (by greater than three standard deviations), SWBT will accrue a performance credit for the service category which may be used to offset future performance penalties incurred in the same service category.

10. Penalties for the specified performance measurements will not apply unless the measurement for the CLEC includes at least thirty individual data points.

11. A pooled measure of variation is appropriate since there will be random variation in both SWBT's data and the CLEC's data. Pooled variation is the weighted average of the CLEC and SWBT population variances where the weights for the individual populations are equal to the degrees of freedom of the populations. Degrees of freedom are equal to the number of observations minus one. Measuring the standard deviation on a pooled basis accounts for both the variation from the CLEC data and SWBT data.

12. The statistical tests that will be used in assessing parity can be found in almost any statistics text book: z-test for the difference in two means or the difference in two proportions. The z value obtained from this test is the number of standard deviations between the two means. It is well known that when the measurement is a proportion or percent, the normal approximation, which is the underlying assumption for the z-test, gives too narrow a confidence interval (i.e. it

underestimates the true variance). For this reason, a formula that compensates for this underestimation, formulas based on exact methods, should be used to measure the standard deviation when the confidence interval is too narrow.

REPORTING

13. Currently data is being collected on the provisioning and maintenance categories as well as for Easy Access Sales Environment (EASE) availability and response time. The remaining measurements are under development. The scheduled data availability for these measurements is February 1, 1998. Performance measurement reports have been developed for AT&T and are being provided manually to AT&T. Similar measurement reports are available to any CLEC upon request. These reports will be distributed to the CLECs via their SWBT Account Executive. These reports compare individual CLEC data, aggregate CLEC data and SWBT data.

14. By the end of 1998, an Internet web site will be developed that will enable CLECs to access their own data, aggregate CLEC data and the comparable SWBT data, for all performance measurement categories.

15. In the paragraphs to follow, actual performance data will be displayed in chart format comparing the aggregate CLEC performance data to that of SWBT data. In those instances where it appears SWBT performance is superior to the aggregate of all CLECs an explanation is provided. However, it should be noted

that in those cases where it appears that the CLEC is receiving superior service to SWBT, there in fact may not be a sufficient number of CLEC occurrences to have valid results as defined in ¶ 10.

PRE-ORDERING

16. Pre-ordering involves the exchange of information between SWBT and a CLEC about a current or potential customer. Pre-ordering capabilities include address verification, service and features availability, telephone number assignment, due date availability, dispatch requirements, and customer service records.

17. SWBT provides the CLECs with a choice of three interfaces for access to its OSS pre-ordering capabilities: EASE, Verigate, and DataGate. All three electronic interface options provide the CLECs with "real time" access on a dial-up or direct connect basis to SWBT's "back office" systems.

18. Since SWBT and the CLECs have access to the same "back office" systems and their transactions are handled interchangeably, the response times from these systems will be the same for CLEC queries as for SWBT queries. SWBT recognizes that the method of connection to these systems is different for the CLECs and SWBT. The CLEC accesses SWBT's OSS functions through the Remote Access Facility (RAF) which acts as a "firewall" to prevent unauthorized access to SWBT's internal communications network. From the RAF, the CLECs have access to the interfaces mentioned in ¶ 17. SWBT will provide the round

trip response times for CLEC queries from the SWBT side of the "firewall" for the Verigate and DataGate interfaces.

PRE-ORDER MEASUREMENTS

19. The following paragraphs describe the two measurements SWBT will provide to the CLECs for pre-order.

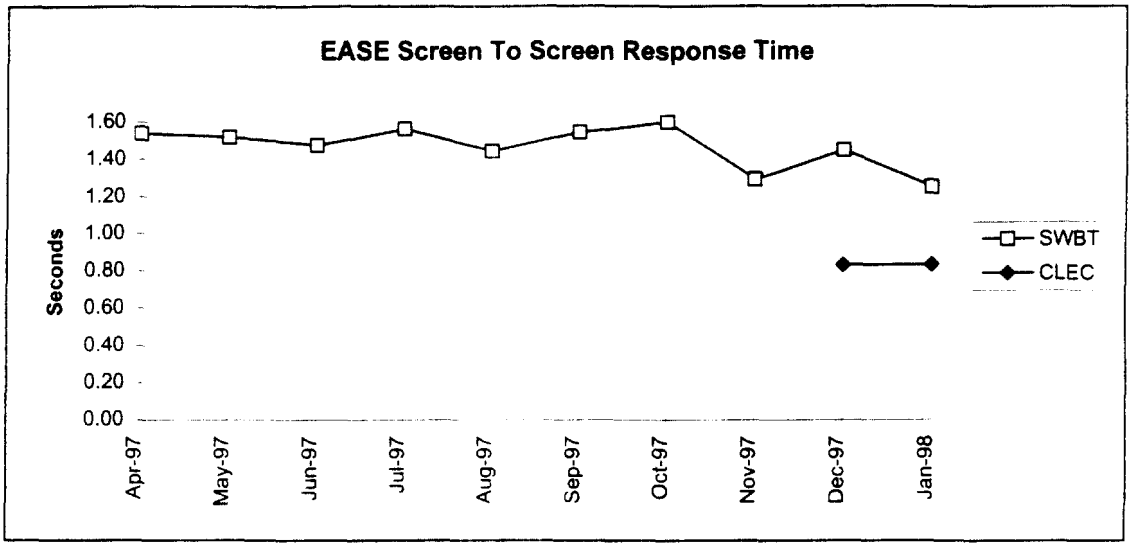
20. **Average response time for OSS Pre-Order Interfaces** measures the average response time in seconds from the SWBT side of the Remote Access Facility (RAF) and return for pre-order interfaces (Verigate and DataGate) by function:

- Address Verification
- Request For Telephone Number
- Request For Customer Service Record (CSR)
- Service Availability
- Service Appointment Scheduling (Due Date)
- Dispatch Required

This measurement will be reported for all CLECs in the aggregate by interface.

6. If a CLEC chooses to use consumer EASE as their interface for pre-ordering and ordering, SWBT can only provide a **screen to screen average response time** measurement. EASE is the same interface as used by the SWBT retail organization and comparative measurements will be provided for SWBT's retail organization.

7. The chart below shows the comparative data for EASE screen to screen response time between the aggregate CLEC response and the SWBT response.



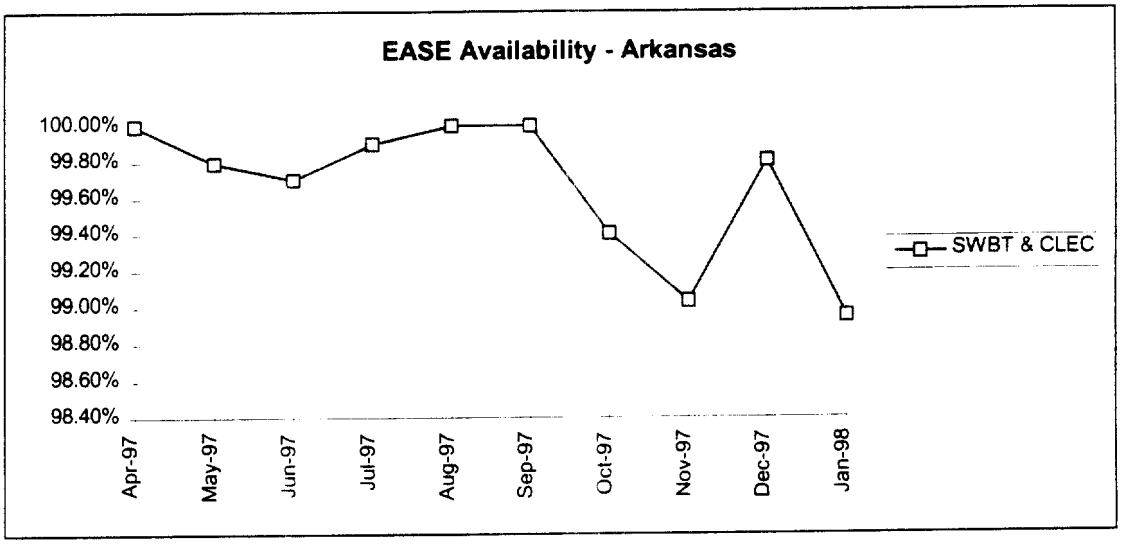
This chart reflects that the CLEC is receiving a faster screen to screen response time than SWBT. It should be noted that the SWBT response time contains the response time from the SWBT service representatives terminal and return while the CLEC response time only includes the time from the RAF and return as defined in ¶ 20.

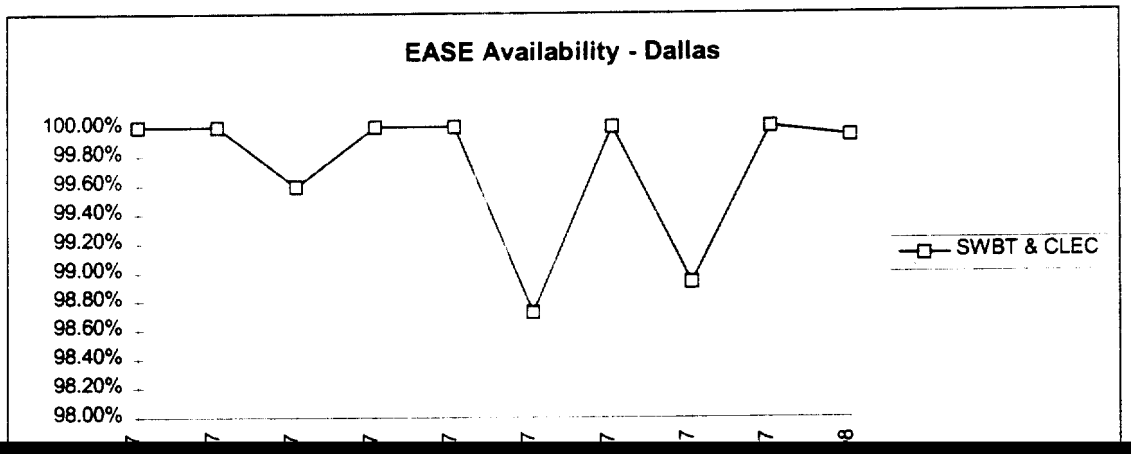
8. **OSS Interface availability** measures the percent of time the OSS interface is available compared to scheduled availability. This measure will be reported on a company basis by interface e.g. EASE. DATAGATE, VERIGATE, LEX, EDI and TOOLBAR. The RAF will be reported by CLEC.

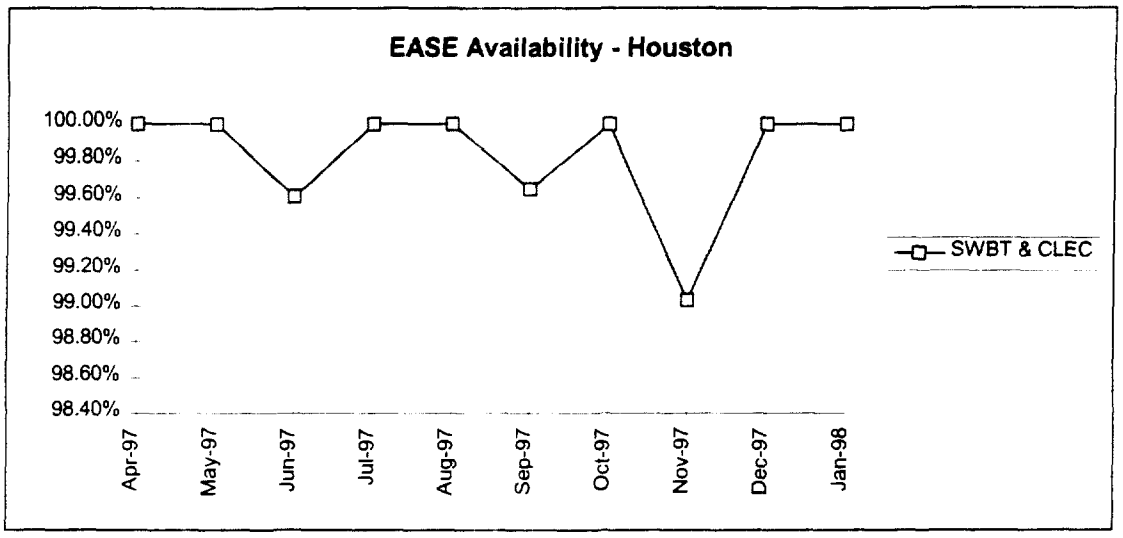
24. The EASE interface is the same interface that SWBT utilizes today for its residence retail customers. There are seven controller regions located throughout

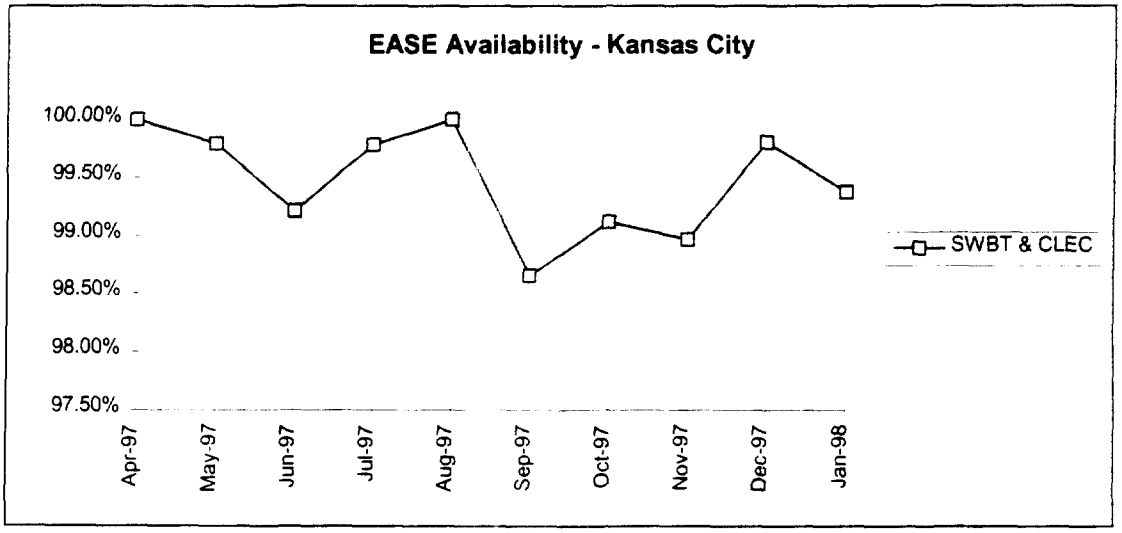
SWBT territory. Any CLEC could potentially access any controller region regardless of the state in which they are serving customers. Therefore, the availability of each controller region is provided separately.

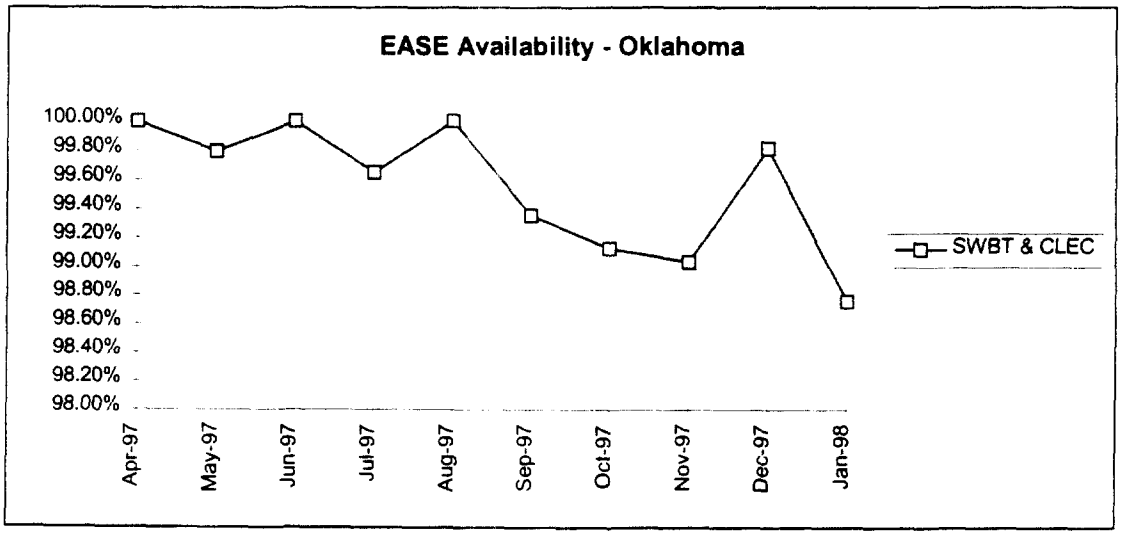
25. The charts below show the EASE availability for the aggregate availability of the CLECs and SWBT for the seven controller regions.

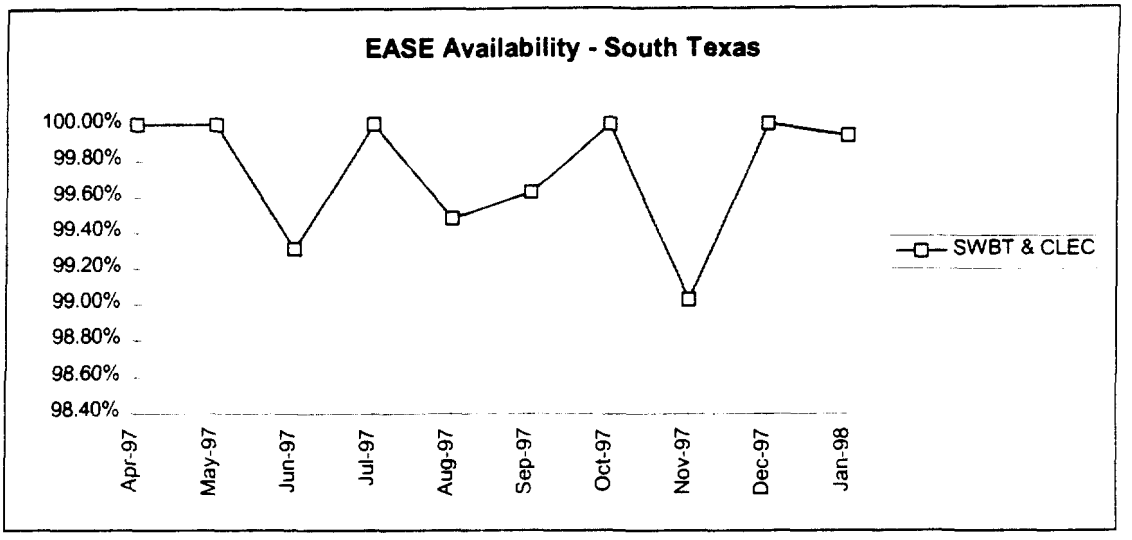


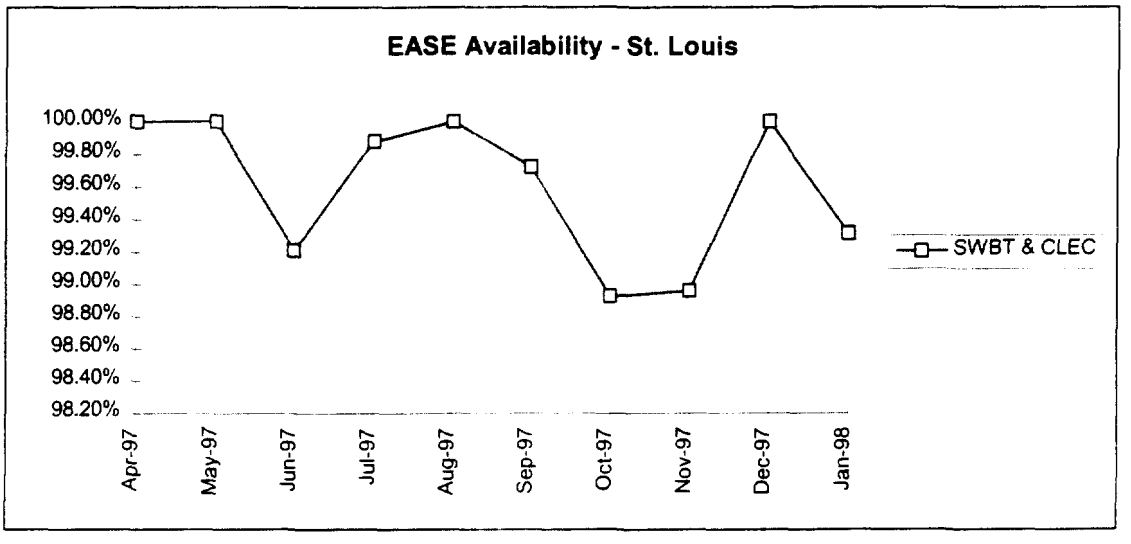



EASE Availability - Houston
100.00%
99.80%
99.60%
99.40%
99.20%
99.00%
98.80%
98.60%
98.40%
Apr-97
May-97
Jun-97
Jul-97
Aug-97
Sep-97
Oct-97
Nov-97
Dec-97
Jan-98
SWBT & CLEC


EASE Availability - Kansas City
100.00%
99.50%
99.00%
98.50%
98.00%
97.50%
Apr-97
May-97
Jun-97
Jul-97
Aug-97
Sep-97
Oct-97
Nov-97
Dec-97
Jan-98
SWBT & CLEC


EASE Availability - Oklahoma
100.00%
99.80%
99.60%
99.40%
99.20%
99.00%
98.80%
98.60%
98.40%
98.20%
98.00%
Apr-97
May-97
Jun-97
Jul-97
Aug-97
Sep-97
Oct-97
Nov-97
Dec-97
Jan-98
SWBT & CLEC





ORDERING

26. Ordering involves the actual transmittal of the service request from the CLEC to SWBT with the necessary information for issuance of a service order. Provisioning involves the exchange of information whereby the CLEC has the capability to obtain confirmation data, service order status, and service order completion information. Mechanized ordering and provisioning capabilities include order receipt, the return of acknowledgments, editing for valid

information, the return of error information, order confirmation and the return of service order completion status.

27. SWBT provides CLECs with a choice of three electronic interfaces for access to its OSS ordering and provisioning capabilities: EASE, Electronic Data Interchange (EDI) gateway, and LSR Exchange system (LEX). Error notification (order reject) is returned on all three interfaces. Service order completion notices are returned on the EDI and LEX interfaces.

ORDERING MEASUREMENTS

28. The following paragraphs describe the eleven measurements that SWBT will provide to the CLECs for ordering.

29. **Percent Firm Order Confirmations (FOCs) received within "x" hours** measures the percent of FOCs returned within a specified time frame from receipt of service order to return of confirmation to CLEC.

- All Res. and Bus. < 24 Hours
- Complex Business (1 - 200 Lines) < 48 Hours
- Complex Business (200+ Lines) - Negotiated
- UNE Loop (1-49 Loops) < 24 Hours
- UNE Loop (>50 Loops) - 48 Hours
- Switch Ports < 24 Hours

This measurement is reported for individual CLECs and all CLECs. This includes mechanized orders from EDI and LEX and manual (FAX or phone) orders. The FOC for EASE is considered to be received at the time the due date is negotiated and thus is not included in this measurement.

20. **Average Time To Return FOC** measures the average time to return FOC from receipt of service order to return of confirmation to the CLEC. This measurement is reported for individual CLECs and for all CLECs in the aggregate by the time frame categories listed in ¶ 29.

21. **Percent Mechanized Completions Returned Within 1 hour** measures the percentage of service order completions (SOCs) received within one hour of successful execution of the SORD (BU340) batch cycle which updates the order status, indicating a completion notice. The batch process executes at the following times: 9:00 am, 12:00 noon, 3:00 p.m., 6:00 p.m., 10:30 p.m.. This measurement will be reported for individual CLECs and for all CLECs in the aggregate with respect to the electronic interfaces (EDI and LEX). The above 1 hour interval is subject to change as the EDI polling time frame changes.

22. **Average Time to Return Mechanized Completions** measures the average time required to return a mechanized completion. This measurement will be reported for individual CLECs and for all CLECs in the aggregate with respect to the electronic interfaces (EDI and LEX). The standard interval for returning

completion will be >97% received within 1 hour of order completion. The 1 hour interval is subject to change as the EDI polling time frame changes.

23. **Percent Rejects measures** the number of rejected orders compared to the issued orders for the electronic interfaces (EDI and LEX). This measurement is reported for individual CLECs and for all CLECs in the aggregate for the electronic interfaces (EDI and LEX).

24. **Percent Mechanized Rejects Returned Within 1 hour of the start of the EDI/LASR batch process** measures the percent of mechanized orders that are rejected and are returned within 1 hour of the start of the EDI/LASR batch process. The EDI and LASR processes execute every two hours between 6:00 A.M. and 12:00 A.M.. This measurement is reported for individual CLECs and for all CLECs in the aggregate for the electronic interfaces (EDI and LEX).

25. **Mean Time to Return Mechanized Rejects** measures the average time required to return a mechanized order that has been rejected. This measurement is reported for individual CLECs and for all CLECs in the aggregate for the electronic interfaces (EDI and LEX).

26. **Provisioning Accuracy** measures the percent of orders completed as requested on the latest Purchase Order Number (PON) from the CLEC. This measurement is reported for individual CLECs, for all CLECs in the aggregate and for SWBT.

27. **Order Process Percent Flow Through** measures the percent of orders or LSRs from entry to distribution that progress through SWBT ordering systems, excluding rejects. This measurement is reported for individual CLECs, for all CLECs in the aggregate and for SWBT with respect to CLEC typed orders and LSC typed orders.

1. **OSS Interface availability** measures the percent of time OSS interface is available compared to scheduled availability. This measurement is reported on a company basis by interface for EASE, DATAGATE, VERIGATE, LEX and EDI. The RAF availability will be reported by CLEC since each CLEC has specific ports on the RAF. Therefore, individual CLECs could experience different RAF availability.

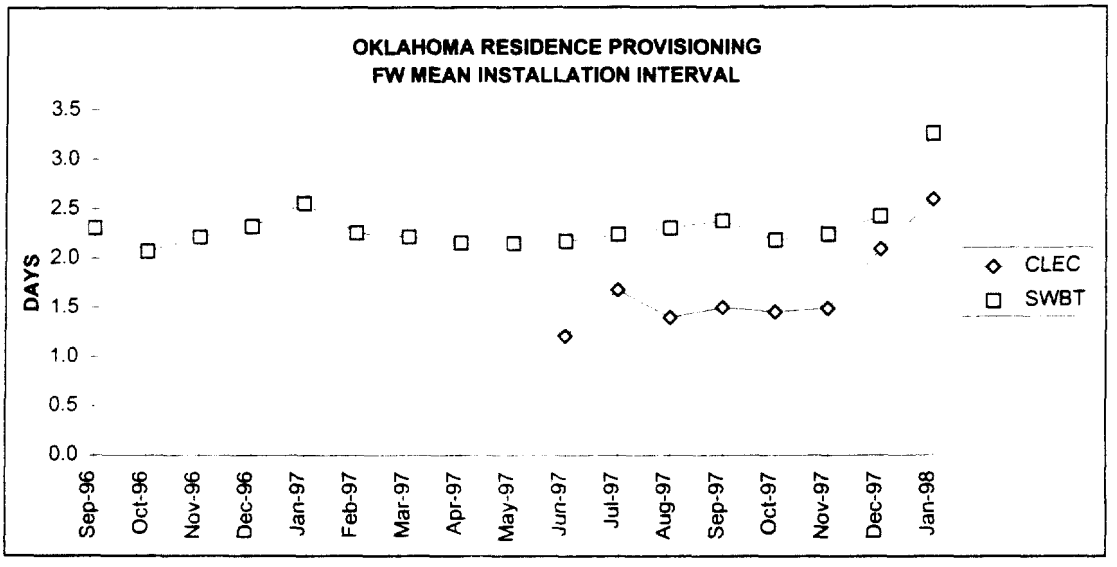
2. **The Local Service Center (LSC) speed of answer** measures the percent of calls answered by a service representative within a specified length of time. SWBT will provide this measurement for the LSC and the SWBT retail service centers.

PROVISIONING MEASUREMENTS

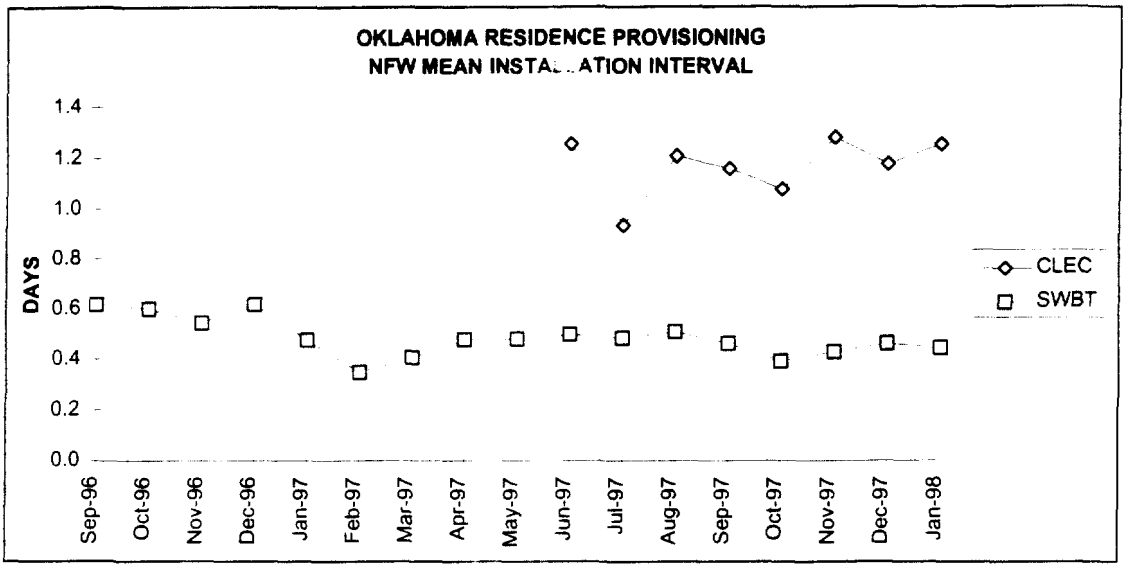
40. In the following paragraphs I describe the fifteen provisioning performance measurements SWBT has agreed to provide CLECs based on negotiations with CLECs, FCC rulings and discussions with the Department of Justice. SWBT is willing to negotiate additional measurements on a case by case basis with the CLECs.

41. **POTS Mean installation interval** measures the average business days from application date to completion date for New (N), Transfer (T), Change (C) orders excluding customer caused misses and customer requested due dates greater than 5 business days. This measurement will be reported for individual CLECs, for all CLECs in the aggregate and for SWBT based on whether Field Work (FW) is required and by type of account (business or residence).

42. The charts below show a comparison between the aggregate CLEC data and SWBT data for the residence POTS mean installation interval broken down by FW and NFW.

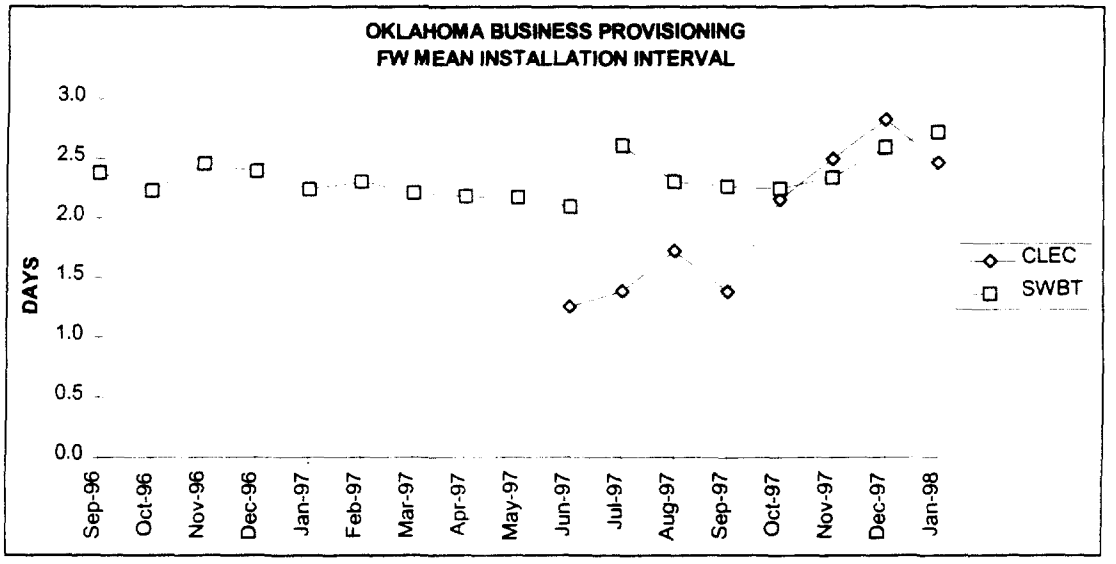


This chart indicates that the CLEC's POTS installation orders are being worked in a shorter interval than those for SWBT. The sample is sufficient to produce reliable results for September through January. The standard exceeded -3 in September through November and between -1 and -2 in December and January (negative indicates service for CLEC is "better" than for SWBT).

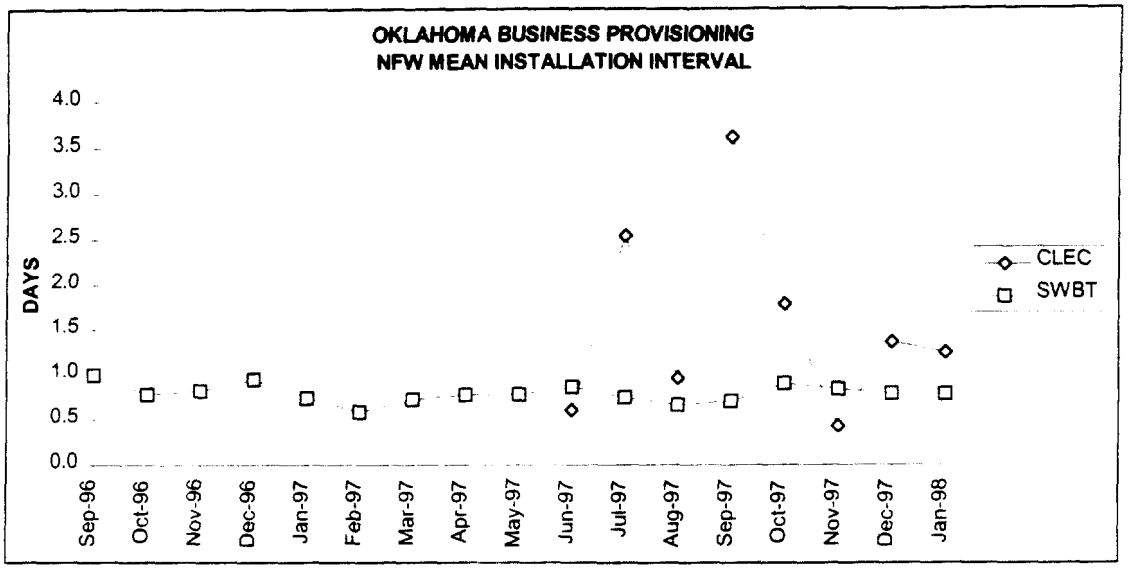


Although the aggregate data for residence POTS NFW mean installation interval shows the CLEC data to be different than that of SWBT by greater than 3 standard deviations, this does not in itself necessarily indicate discriminatory service is being provide by SWBT to the CLEC. The residence POTS NFW mean installation interval contains data for N. T and C orders. Each of these order types may require different intervals to install. If the distribution of N, T and C orders is not the same for the CLECs as it is for SWBT, then the two means appear different but the service provided to the CLEC by order type is not. SWBT is in the process of further breaking this measurement down to identify if in fact the difference in the data is a result of a difference in the service being provided to the CLECs or a difference in the distribution of the types of orders being issued by the CLECs from those being issued by SWBT.

43. The charts below show a comparison between the aggregate CLEC data and SWBT data for the business POTS mean installation interval broken down by FW and NFW.



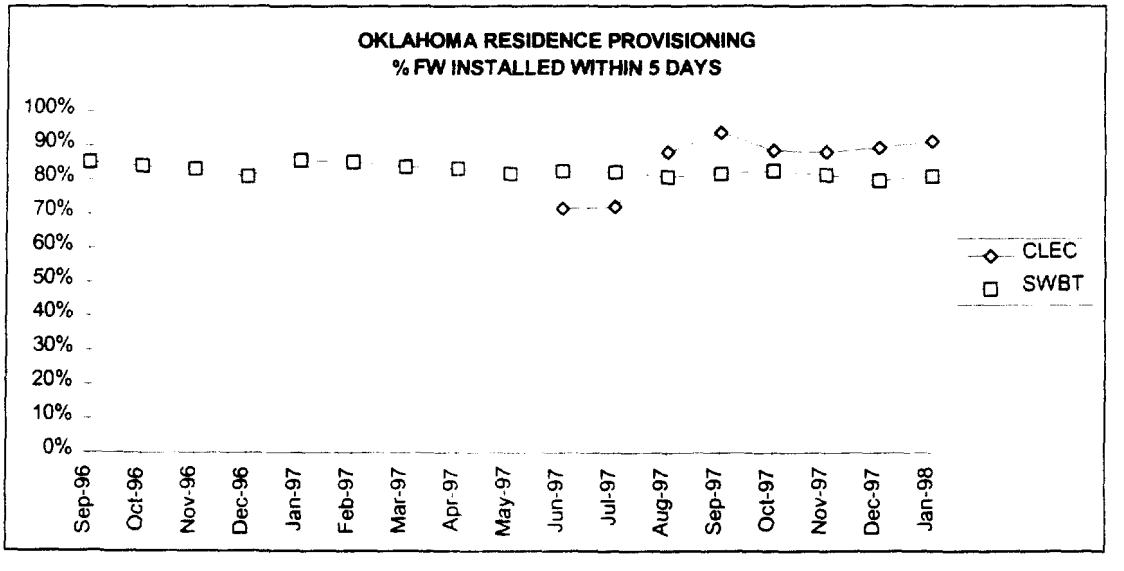
The difference between SWBT and aggregate CLEC data in November and December, as indicated by the chart above, is not statistically significant. The CLEC's mean installation interval for both months are 0.2 and 0.3 standard deviations away from the SWBT average. This is well below the 1 standard deviation level that is defined as parity in ¶ 8.



Although the aggregate data for business POTS NFW mean installation interval shows the CLEC data to be different than that of SWBT by greater than 3 standard deviations for July, September and October and between 2 and 3 standard deviations for December and January, this does not in itself necessarily indicate discriminatory service is being provide by SWBT to the CLEC. The business POTS NFW mean installation interval contains data for N, T and C orders. Each of these order types may require different intervals to install. If the distribution of N, T and C orders is not the same for the CLECs as it is for SWBT, then the two means appear different but the service provided to the CLEC by order type is not. SWBT is in the process of further breaking this measurement down to identify if in fact the difference in the data is a result of a difference in the service being provided to the CLECs or a difference in the distribution of the types of orders being issued by the CLEC from those being issued by SWBT.

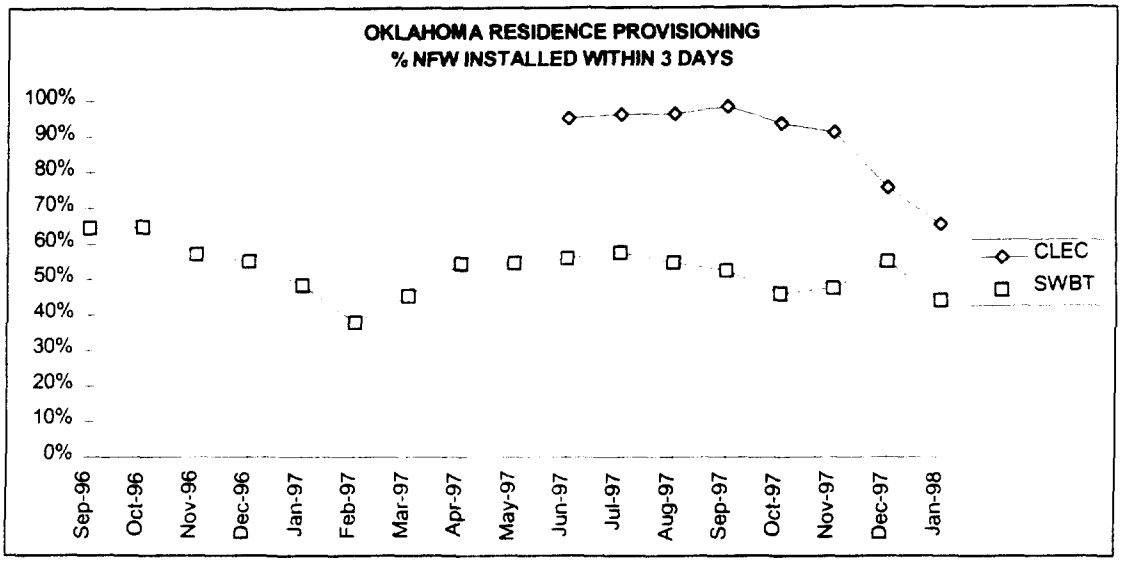
44. **POTS Percent Installations Completed within "x" business days** measures the percent of orders completed within "x" business days, 5 business days for FW and 3 business days for NFW, of receipt of confirmed service order for POTS resale service, excluding orders where the customer requested a due date greater than "x" business days, 5 business days for FW and 3 business days for NFW and orders where the customer caused the missed due date. This measurement will be reported for individual CLECs, for all CLECs in the aggregate and for SWBT by Field Work (FW), No Field Work (NFW), Business and Residence.

45. The charts below show a comparison between the aggregate CLEC data and SWBT data for the residence POTS percent installed within 5 days broken down by FW and NFW.



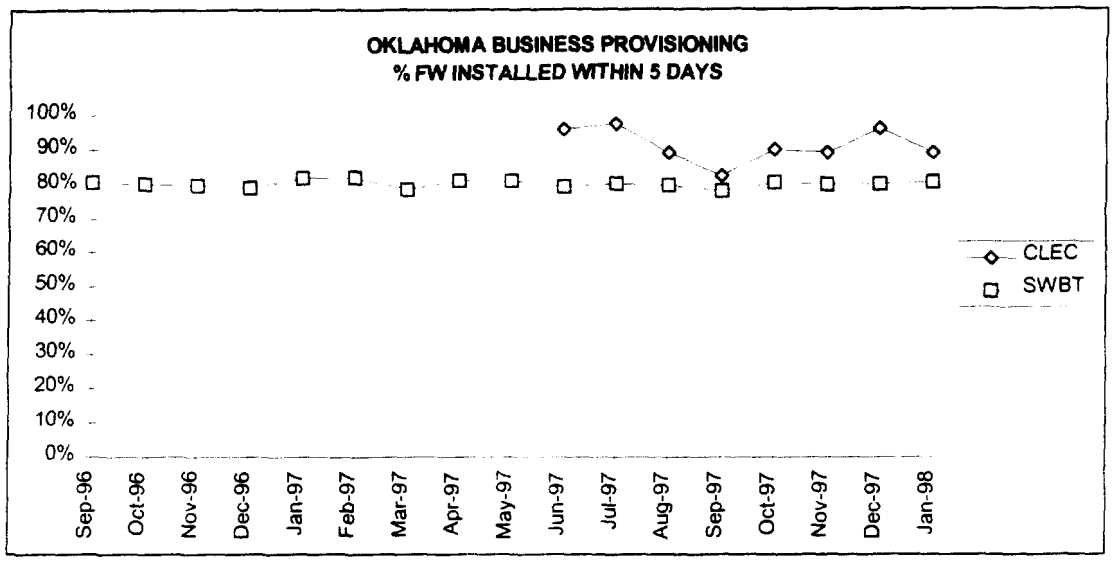
This chart indicates that a higher percentage of the CLEC's residence FW orders are being installed within 5 days than those being installed for SWBT. The

sample is sufficient to produce reliable results for September through January. The standard deviation exceeded 3 in September through January (positive indicates service for CLEC is "better" than for SWBT).

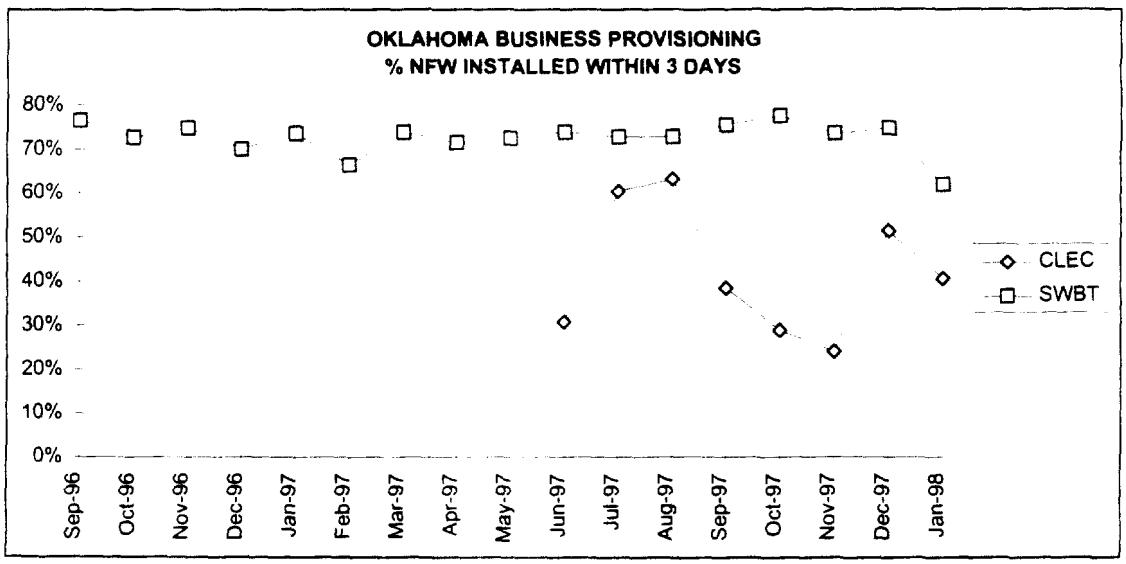


This chart indicates that a higher percentage of the CLEC's residence NFW orders are being installed within 3 days than those being installed for SWBT. The standard deviations exceeded 3 in June through January (positive indicates service for CLEC is "better" than for SWBT)

46. The charts below show a comparison between the aggregate CLEC data and SWBT data for the business POTS percent installed within 5 days broken down by FW and NFW.



This chart indicates that a higher percentage of the CLEC's business FW orders are being installed within 5 days than those being installed for SWBT. The standard deviation was between 1 and 3 in June through August, October, November and January, exceeded 3 in December and between 0 and 1 in September (positive indicates service for CLEC is "better" than for SWBT).



Although the aggregate data for business POTS NFW percent installed within 3 days shows the CLEC data to be different than that of SWBT by greater than -3

standard deviations for June, July, September through January and between -2 and -3 standard deviations for August, this does not in itself necessarily indicate discriminatory service is being provided by SWBT to the CLEC. The business POTS NFW percent installed within 3 days contains data for N, T and C orders. Each of these order types may require different intervals to install. If the distribution of N, T and C orders is not the same for the CLECs as it is for SWBT, then the two means appear different but the service provided to the CLEC by order type is not. SWBT is in the process of further breaking this measurement down to identify if in fact the difference in the data is a result of a difference in the service being provided to the CLECs or a difference in the distribution of the types of orders being issued by the CLEC from those being issued by SWBT.

47. **Design Services Mean Installation Intervals** measures the average business days from application date to completion date for N,T and C orders by item, excluding missed due dates caused by the customer and customer requested due dates greater than "x" business days. The value of "x" will be based on the standard intervals that apply to the various categories. This measurement will be reported for individual CLECs, for all CLECs in the aggregate and for SWBT by DDS, DS1, DS3, Voice Grade Private Line (VGPL) and ISDN.

48. **Design Services Percent Installations Completed Within "x" Business Days** measures the percent installations completed within "x" business days, excluding customer caused misses and customer requested due dates greater than "x"

business days. The value of "x" will be based on the standard intervals that apply to the various categories. This measurement will be reported for individual CLECs, for all CLECs in the aggregate and for SWBT by DDS, DS1, DS3, Voice Grade Private Line (VGPL) and ISDN.

49. **Unbundled Network Element (UNE) Mean Installation Interval** measures the average business days from application date to completion date for N, T and C orders, excluding delayed installations caused by the customer and customer requested due date greater than "x" business days. The "x" business days is determined based on quantity of UNE loops ordered and the associated standard interval as stated in ¶ 50. This measurement will be reported for individual CLECs and for all CLECs by loop type [2-Wire Analog 8dB Loop, BRI (2-Wire Digital Loop), and PRI (DS1 Loop)], switch port (Analog, Analog DID, BRI and PRI) and unbundled dedicated transport

50. The following loop provisioning intervals apply to UNEs:

Unbundled Loop Installation

- 1-10 Loops Per Service Order - 3 days from Receipt of valid service order
- 11-20 Loops Per Service Order - 7 days from Receipt of valid service order
- 21+ Loops Per Service Order - 10 days from Receipt of valid service order

Interim Number Portability

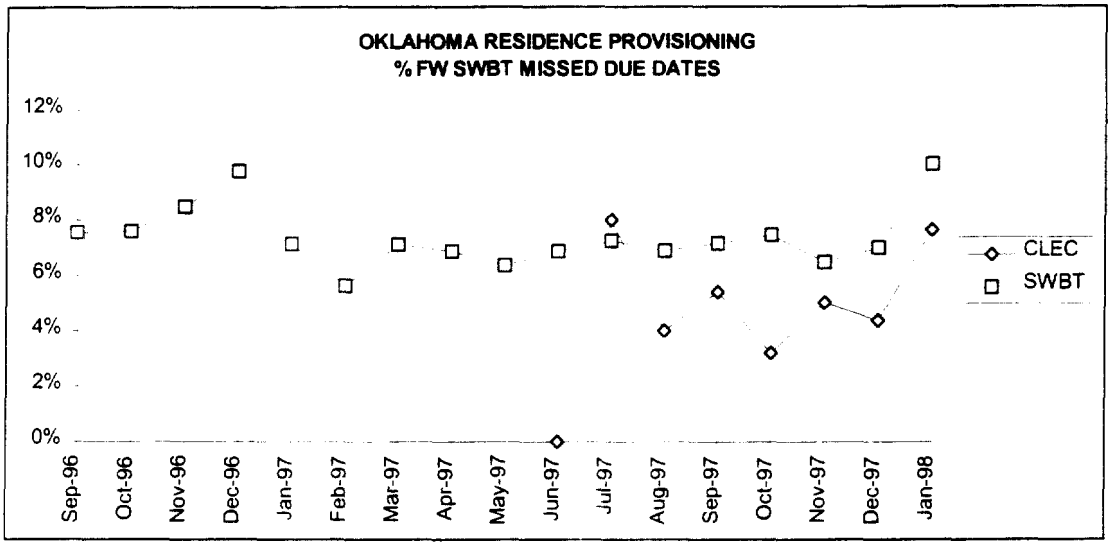
- 1-10 Numbers Per Service Order - 3 days from Receipt of valid service order
- 11- 20 Numbers Per Service Order - 7 days from Receipt of valid service order
- 21+ Numbers Per Service Order - 10 days from Receipt of valid service order

51. **UNE Percent Installations Completed Within "x" Business Days** measures the percent installations completed within "x" business days, excluding delayed installations caused by the customer and customer requested due dates greater than "x" business days. The "x" business days is determined based on quantity of UNE loops ordered and the associated standard interval as stated in ¶ 50. This measurement will be reported for individual CLECs and for all CLECs in the aggregate by loop type [2-Wire Analog 8dB Loop, BRI (2-Wire Digital Loop), and PRI (DS1 Loop)], switch port (Analog, Analog DID, BRI and PRI) and unbundled dedicated transport.

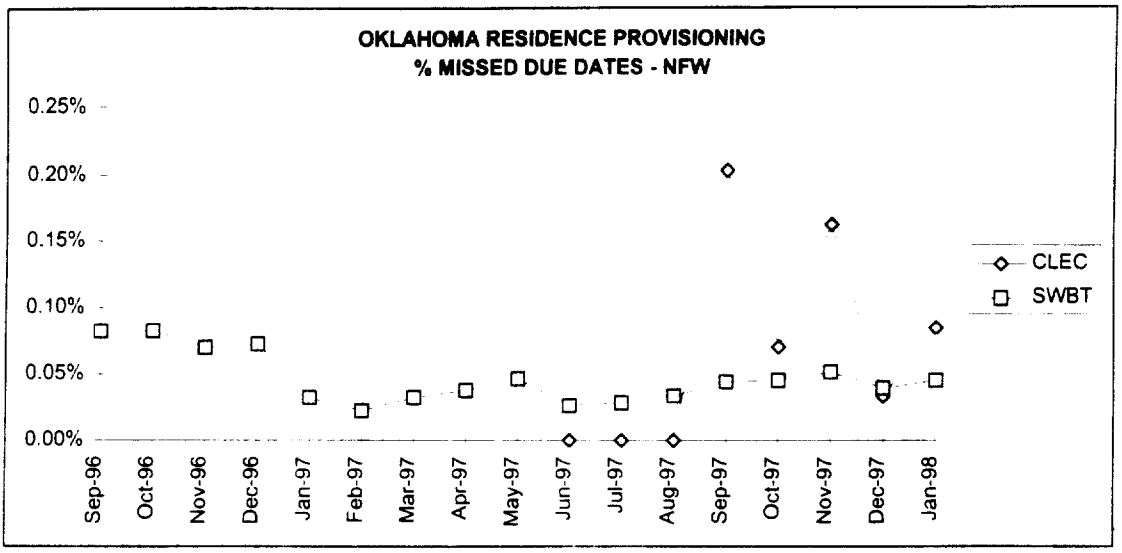
52. **POTS Percent SWBT Caused Missed Due Dates** measures the percentage of N, T, and C orders identified as company misses during the life of the order. This measure is determined in respect to the original due date unless a new due date is requested by the customer. This measurement will be reported for individual

CLECs, for all CLECs in the aggregate and for SWBT by Field Work (FW), No Field Work (NFW), Business and Residence.

53. The charts below show a comparison between the aggregate CLEC data and SWBT data for the residence POTS percent SWBT caused missed due dates broken down by FW and NFW.

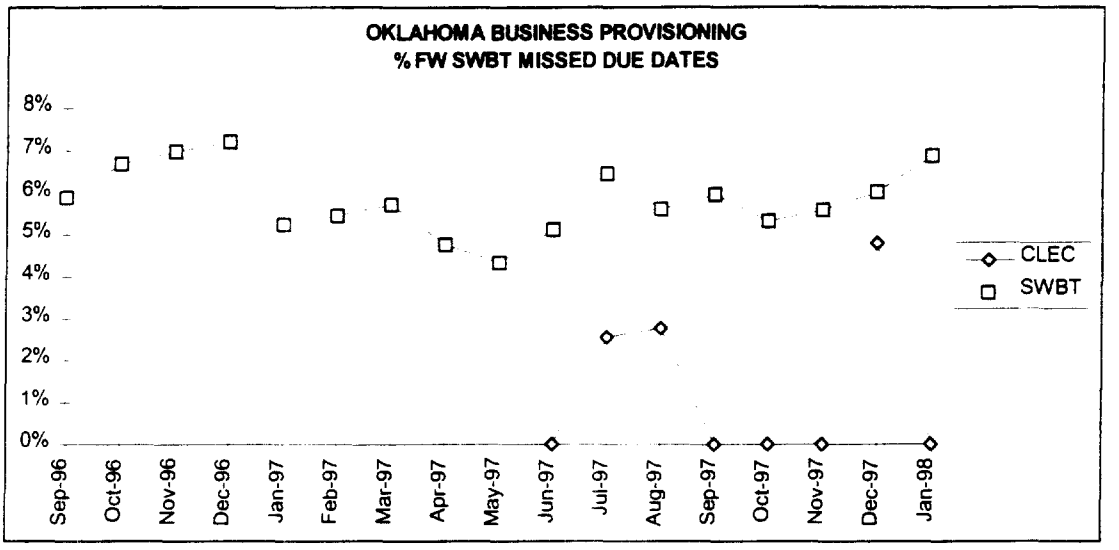


This chart indicates that the CLEC's experience a lower percentage of SWBT caused missed due dates for residence FW orders than for SWBT FW orders. The sample is sufficient to produce a reliable test for September through January. The standard deviation exceeded -3 in October, between -1 and -3 in September, and November through January (negative indicates service for CLEC is "better" than for SWBT).

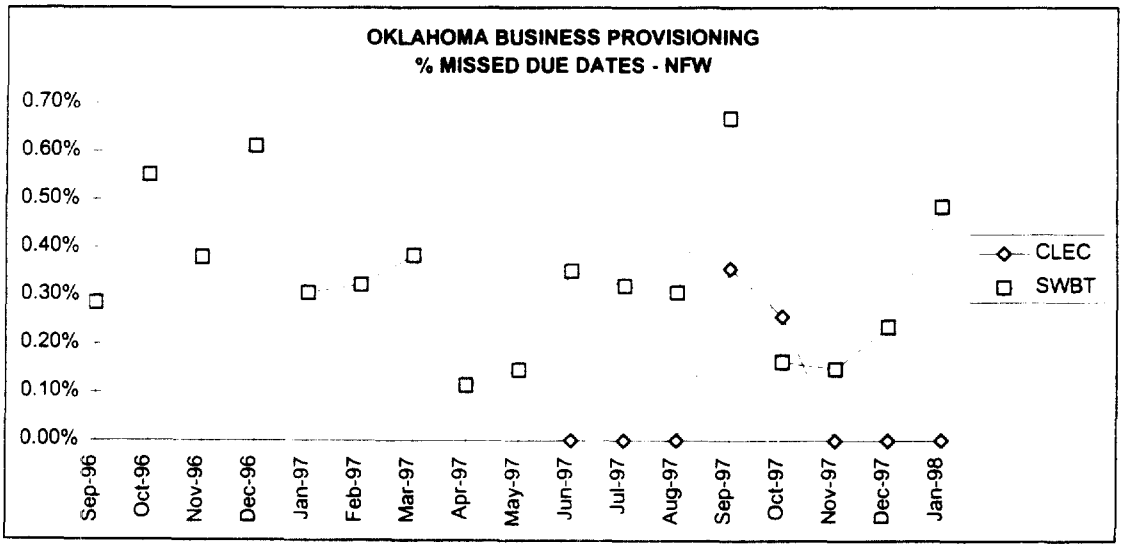


The difference between the SWBT and the aggregate of all CLECs for NFW percent missed appointments in the months of September, October, November and January was 2.8, 0.6 , 2.0 and 1.1 standard deviations. There were not two consecutive months that the difference in aggregate CLEC data and for SWBT was between one and three standard deviations. Therefore, as defined in ¶ 8, a performance breach has not occurred.

54. The charts below show a comparison between the aggregate CLEC data and SWBT data for the business POTS percent SWBT caused missed due dates broken down by FW and NFW.



This chart indicates that the CLECs experience a lower percentage of SWBT caused missed due dates for business FW orders than SWBT. The standard deviation was between -1 and -3 in June, July, September through November, and January and between 0 and -1 in August and December (negative indicates service for CLEC is "better" than for SWBT).



This chart indicates that the CLEC's experience a lower percentage of SWBT caused missed due dates for business NFW orders than SWBT. The standard deviation